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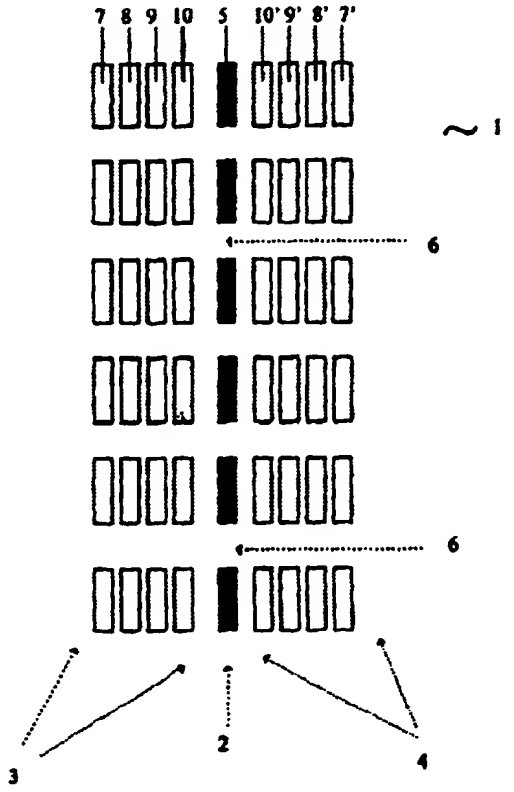
(54) Title: DISPLAY UNIT AND METHODS OF DISPLAYING AN IMAGE

(57) Abstract

The present invention provides a method of displaying an image on a display device having first and second sides, said image including a light restricting silhouette pattern having a plurality of first transparent or translucent areas, and at least one design layer having at least one color, said at least one design layer being visible from one side of said display device and substantially less visible from the other side, said image being substantially transparent or translucent as viewed from the other side, comprising the steps: 1) providing at least a definition of said design layer to a computer; 2) generating a computerized version of said design layer with the computer; 3) outputting the computerized version of said design layer to said display device, the computerized version of said design layer being modified to subdivide said design layer into a plurality of second discrete transparent or translucent areas and other areas; and 4) displaying said modified design layer and said silhouette pattern with said first and second transparent areas being in registry. Articles produced in accordance with the method are also described. Printers, raster image processing methods and systems, computer graphics systems are described for producing the article.



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DISPLAY UNIT AND METHODS OF DISPLAYING AN IMAGE

Field of the Invention

The present invention relates to a display unit, and in particular to a display unit for displaying images viewable from two sides, whereby the image as perceived from one side can be different from the image perceived from the other side and the display unit is transparent or translucent when viewed from one of the sides.

The invention also relates to a method of displaying such an image as well as printers suitable for displaying a printed image and raster image processing (RIP) systems for preparing the data before display, particularly before printing.

Background of the Invention

Display devices with differing images on each side and being transparent or translucent from one of the sides are known from a variety of documents including EP-A-0170472 which describes a panel comprising a light permeable material and a silhouette pattern, comprising any arrangement of light restricting material which subdivides the panel into a plurality of discrete light restricting areas and/or a plurality of discrete transparent or translucent areas, characterized in that a design is superimposed on or forms part of said silhouette pattern so that said design is visible from one side of the panel only, and wherein said design is less perceptible from said one side of the panel as the level of illumination transmitted through the panel from said other side increases. A number of different vision effects are obtainable from different panels falling within the above definition. Thus clarity of vision can be maintained from the one side to the other side with the exception of the area covered by the design with clarity of vision through the whole of the panel from the other side to the one side. Visibility from the one side to the other side can be totally or partially obstructed while there is clarity of vision through the whole of the panel from the other side to the one side, in other words a unidirectional vision effect is obtained. Clarity of vision is obtainable from the one side to the other side except in the area of the design while visibility from the other side to the one side is totally or partially obstructed. Vision from either side can be totally or partially